DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027598
Date Inspected: 14-May-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Jobsite

CWI Name: William Sherwood

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS Components

Summary of Items Observed:

5-14-12

The Caltrans Quality Assurance Inspector (QAI) David Gray was at the American Bridge Fluor (ABF) job site between times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QAI observed the following ABF welders noted below performing 1G (flat position) Shielded Metal Arc Welding (SMAW) on the Seismic Performance Critical Member (SPCM) Complete Joint Penetration (CJP) splice butt joint using 3.2mm E7018-H4R electrodes with an average of 130amps. This welding was in progress for the duration of the shift. The welding consists of root and intermediate weld passes. At the 13W-A2.1 location Steven Davis ID# 7889, 13W-W2.1 and 13W-W2.3 Jacob Stafford ID# 8020, 13W-W2.2 Mike Jimenez, and 13W-W2.4 and 13W2.5 Edward Brown ID# 9331. QCI Inspectors William Sherwood was observed monitoring the welding parameters for compliance to ABF-WPS-D1.5-1040C-CU Revision 0 and measuring inter-pass temperatures between passes. The QAI verified that the electrodes were stored in electric rod ovens and appeared to be in accordance with AWS D1.5 Section 4.5.2 and exposure rates appeared to be in accordance with AWS D1.5 Table 4.7. During subsequent observations it was noted that the welders were using a power disc grinder and/or rotary die grinders at weld starts and stops as needed and were cleaning between weld passes with power wire wheel brushes.

The QAI observed ABF welder Ken Chappell (Welder ID 3833) in the process of performing cover pass welding utilizing the Submerged Arc Welding (SAW) process using F7A6-EM12K-H8 (1/8") diameter electrode Flux 10. 62 in the (1G) flat position on the (top side) at the following locations: 1) the Deck Plate Drop-in Section Transverse Field Weld Splice on Segment 13W- PP122.2. This weld segment is complete on the top side from Y+

1000 to Y+ 8650. The remainder of weld segment (Y 0 to Y+ 1000) to be completed at a later date. And 2) Deck Plate Drop-in Section Longitudinal Field Weld Splice on Segment 13W- W2.5. This weld segment is complete on the top side from Y 0 to Y+ 3500. The remainder of weld segment (Y+ 3500 to Y+ 5000) to be completed at a later date. The QAI observed the QCI verify splice fit-up and that the minimum preheat temperature was per the approved WPS , and afterwords verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS 4042B-1 Revision 1. The QAI observed the QCI verify electric Flux Ovens were in accordance with the temperature requirements of AWS D1.5 Section 4.8.3.

The QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work appears to be in general accordance with the project plans and specifications.

Summary of Conversations:

Except as noted above no significant conversations were held on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Gray,David	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer